

Errata

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This document maintains a list of errata from my publications. Please contact me if you find items to add to this list. Many thanks.

1 Particle Gibbs Split-Merge Sampling for Bayesian Inference in Mixture Models

First, on page 27, (24), the equality should be a proportional sign (\propto). Second, in (26), $\bar{\sigma}_i(\cdot)$ is missing a special treatment for the initial iterations of the algorithm, e.g., in the two clusters $\bar{\sigma}_1$ should be: $\bar{\sigma}_1(x_t) = \{\sigma_{t'} : x_{t'} \in \{\#1, \#3\}, 1 \leq t' \leq t\}$. Many thanks to Matteo Lepur for catching this.

2 Non-Reversible Parallel Tempering: a Scalable Highly Parallel MCMC Scheme

In Equation (56) of the supplement, the last occurrence of $a^{i,-}$ should be $a^{i,+}$. This is just a typo and the rest of the argument goes through correctly.

3 Parallel Tempering on Optimized Paths

1. The definition of ELE assumption needs to be slightly strengthened in the general path setup to obtain that the index processes are Markovian. See the PhD thesis of Saifuddin Syed for the correct formulation of the general path version of the ELE assumption. With this modified definition, the results of the paper hold verbatim.
2. In the proof of Proposition 1, ignore the equation just below “Taking a derivative of W_t , we find that” and the second line of the group of equations starting with $\lambda(t) = \dots$ (these correspond to the special case where $t = 1/2$). The rest of the argument carries through.

4 Evolutionary inference via the Poisson indel process

1. In Equation (1) of the supplement, the order of the sum and product, and the argument of $b(\cdot)$, are incorrect. The corrected equation is:

$$\prod_{w \in \text{child}(v)} \sum_{\sigma' \in \Sigma_\epsilon} \exp(b(w)Q)_{\sigma\sigma'} \tilde{f}_w(\sigma').$$

This was due to an error in the typographic process; the correct expression was used in the rest of the paper and supplement (see for example in Section 5 of the supplement), as well as in the software implementation. Many thanks to Vincent Zhai for catching this.

2. In lines 3–5 of Section 2 in the Supplement, there is a missing negative sign in the typesetting of the derivation, $e^{\|\nu\|}$ should be $e^{-\|\nu\|}$. This was due to an error in the typographic process, the result is not affected. Many thanks to Clara Iglhaut and Jūlija Pečerska for catching this.

5 Phylogenetic inference via sequential Monte Carlo

The proof in Appendix 1 is superseded by the proof in the Appendix of our follow-up paper, Wang et al. [2015]. The results in Appendix 1 is correct but the proof uses a naive LLN while the dependencies on the weights requires a more careful argument. This is corrected in Wang et al. [2015], which also gives more general conditions.

References

- Liangliang Wang, Alexandre Bouchard-Côté, and Arnaud Doucet. Bayesian Phylogenetic Inference Using a Combinatorial Sequential Monte Carlo Method. *Journal of the American Statistical Association*, 110(512):1362–1374, 2015.